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Accidental Displacement of Impacted Third Molar into Lateral Pharyngeal Space

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The displacement of teeth into the adjacent anatomical space is an uncommon complication (1-3). The most reported complications are the displacement of the root or crown or entirely tooth displacement into the maxillary sinus or submandibular space (4-9). The reasons for displacement into the submandibular space are the thinness of the lingual cortex or the close relation of the roots of the lower third molar with this space. For this reason, during surgical removal of these teeth, fragments of roots or the complete tooth may displace into the submandibular space (6,10). The purpose of this article is to report a case of the displacement of the lower third molar into the lateral pharyngeal space during surgical removal.

Case Report

A 21-year-old male patient was suffering from pain and trismus. The patient's medical history revealed that he had undergone an unsuccessful surgical operation to remove the lower third molar before our examination. During the clinical examination a significant swelling and edema in the right neck and cheek region were observed due to the initial surgical procedure. In the intraoral examination the mouth opening amount was 20 mm and there was a swelling at the retromolar region in the affected side. The radiological examination included panoramic, occlusal and computerized tomographic (CT)

views. The radiological findings showed that the tooth was displaced into the pterygomandibular region (Figures-1-3).

Removal of the tooth under local anesthesia via the lingual approach is preferred. The incision was made on the alveolar crest between the anterior edge of the ramus and lingual gum of the second molar. After reflection of the mucoperiosteal flap, the lateral pharyngeal space is reached with blunt dissection. In this area the tooth was determined at the horizontal position and removed carefully. The wound was closed with 3/0 silk suture material. Postoperatively an antibiotic (amoxicillin), nonsteroidal anti-inflammatory agent (naproxen sodium), and oral rinse (chlorhexidine gluconate) were administered. On the 10th postoperative day it was seen that the swelling and trismus had improved and the mouth opening was 35 mm.

The displacement of the lower third molar during surgical removal procedure is an uncommon complication. The most common reasons for this situation are distolingual angulation of the tooth, extreme thinness of the lingual cortex (6,11), and sometimes even the relation between the roots and submandibular space. Besides insufficient clinical and radiographic examination, extreme or uncontrolled strength practice, incorrect manipulation and lack of experience are important factors for the displacement of teeth.

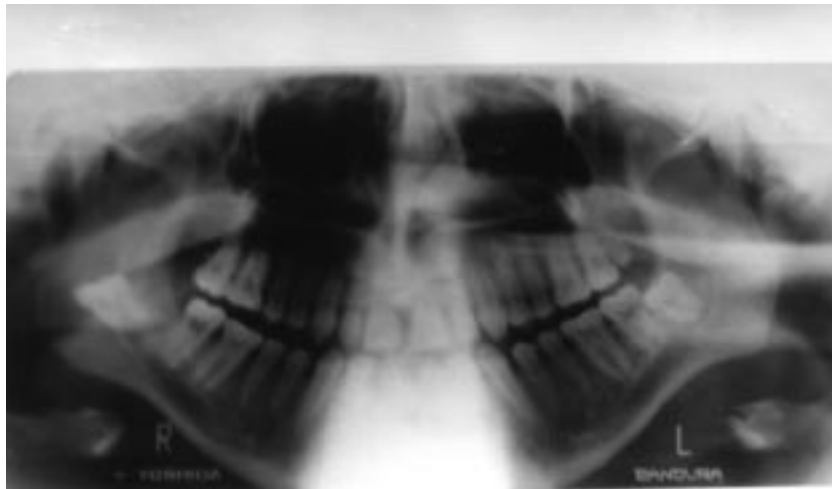


Figure 1. Panoramic radiograph shows the displaced tooth apparently in the pterygomandibular region.

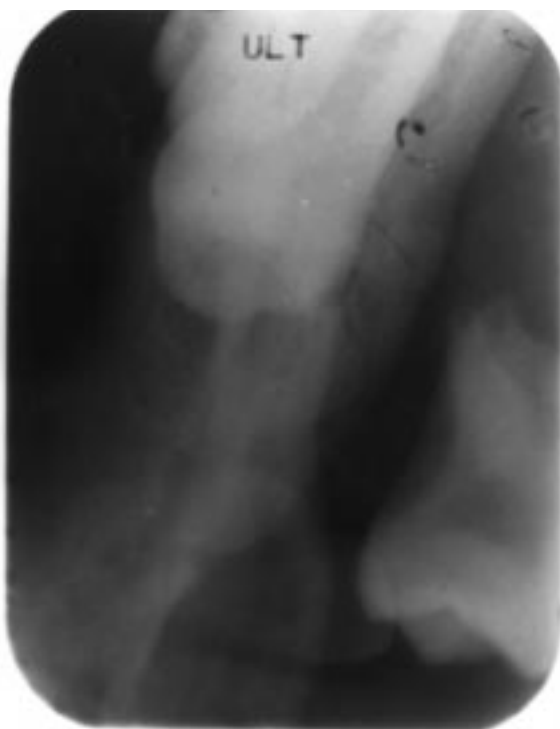


Figure 2. Occlusal radiograph shows the displaced third molar at the anterior border of the lateral pharyngeal space.

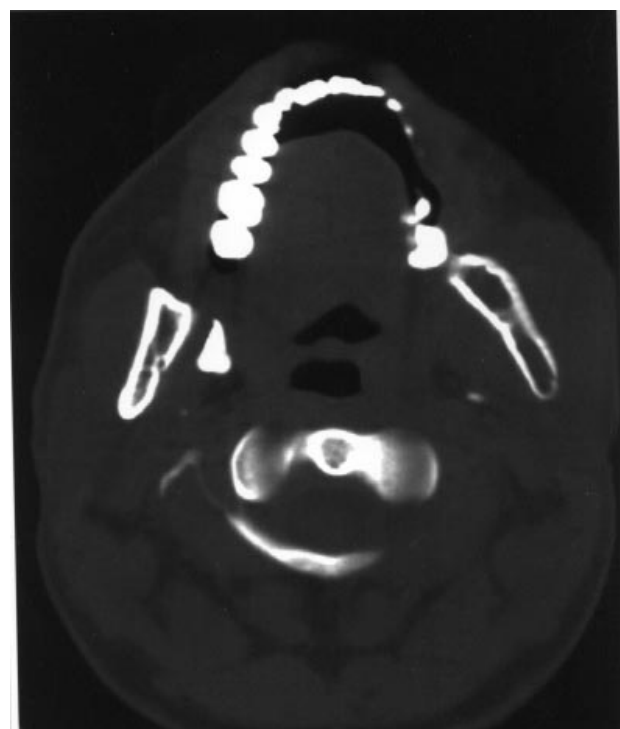


Figure 3. The displaced tooth appearance in computerized tomographic image.

To determine the displaced teeth, panoramic, lateral, posteroanterior, occlusal radiographs and CT images can be useful (1,12). The correct localization of the displaced tooth will facilitate access and removal of the tooth during surgery. Some authors suggest that the displaced tooth must be removed at the initial surgical practice (7). However, others propose a 3-4 week wait because of foreign body reaction around the tooth. This reaction is

due to the development of fibrous tissue around the tooth immobilizing it (4,6,13). On the other hand, infection may develop from the displaced tooth.

In this case, the tooth was immediately removed to avoid infection that can be the cause of serious complications in the adjacent anatomical spaces.

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